# Report by H.M. Inspectors

on

# JOHN RUSKIN COUNTY GRAMMAR SCHOOL, CROYDON

Inspected on 6th, 7th, 8th and 9th December, 1949

## NOTES

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# NATURE AND SCOPE OF SCHOOL

The School was opened in 1920 in the Polytechnic building as a selective central school of 210 boys. It removed to its present building in 1935, and secured recognition as a grammar school in April, 1945. It is the second boys' grammar school to be established by the Local Education Authority in an area which includes a large independent school and a direct-grant school. The free grammar school places for boys are probably not more than 16 per cent. of the age group and even including the fee-paying places available the number of boys in grammar and local Public Schools is not likely to be more than 19 per cent. There is no entry to secondary technical schools at eleven and the total number of places in grammar schools is thus not such as to suggest, of itself, that in an area of this kind any one of the schools concerned should not be able to recruit boys who would profit by this type of education. Competition for the places provided by the Authority is very keen.

The age of entry has recently been raised, and the general age of boys entering on 1st September, 1949, was from eleven years one month to twelve years one month. The age-spread in some of the higher Forms is rather wide; this is mainly due to late entries, some of which represent transfers from other schools or other areas. While 30 is regarded as the normal number in a Form, there are six Forms with numbers up to 34, and the Inspectors would point out that over-large numbers may not only affect the pace but modify the character of the work done. The number in the School is now 346, of whom 33 are in the Sixth Form. Eight of the Sixth Form were transferred from selective central schools after obtaining the School Certificate: they include some very intelligent boys. It is suggested that transfer at earlier ages should be considered in view of the abolition of the School Certificate examination in 1950. A tendency in earlier years for boys to leave before the end of their fifth year now seems to have disappeared. The average leaving age and the average length of school life have increased respectively from 16 years one month and four years seven months in 1946-47 to 16 years nine months and five years one month in 1948-49 (excluding transfers to other schools). The most complete information concerning occupations taken up or proposed to be taken up by leavers relates to 1949; the figures, classified as well as is possible on sometimes scanty data, are: Clerical work, including Banking and Insurance: 17; trades, art and technical work: 20; professions: 5; Merchant Navy and Forces: 2; University and Medical Schools: 10; other institutions of further education: 4. Some change in distribution is to be expected as a result of the School's new status. University entries have increased considerably since 1946-47, but professional entries remain approx-. imately the same.

### GOVERNING BODY

The Governing Body is the Higher and Technical Education Sub-Committee of the Education Committee. There are sixteen members of this, three of whom are co-opted members.

# PREMISES AND EQUIPMENT

The School is housed in an old elementary school building, intended for younger children, on a very small site. Since the war it has been subjected to a process of conversion, on which all concerned are to be congratulated. In this time a new laboratory block, a Library, a Secretary's office, flower beds and trees have been provided, and a hall hired for use as an Art room. The School has very recently been re-decorated. On so small a site there is little more that can be done; it will, however, be useful to describe the building and to note some of the more important deficiencies, a few of which could probably be remedied.

The classrooms available are barely adequate for present needs, even while the Sixth Form groups are so small that they can be accommodated in the various small rooms (such as Projection and Medical rooms) which were never intended as teaching spaces. It is impossible to see how the greater numbers to be expected in the Upper School can be accommodated. hiring of a parish hall as an Art room has relieved the pressure somewhat; the heating, cleaning and decoration of this need to be looked into. laboratory provision is fairly good, with the exception of the Biology Laboratory, which is so small as to be likely to restrict the development of the subject. Special subject rooms are being provided wherever possible. The library, which has been converted for this use from a classroom, is a great asset to the School but is already becoming inadequate in size. The lower hall is of necessity used for both Gymnasium and Dining-room; for either purpose it is small, and there is no proper changing accommodation. The upper hall, which is used for Assembly, will not comfortably accommodate the whole School. Ventilation, heating and lighting are generally good. The boys' lavatories include several W.C.'s of infant size, and have no door fastenings, while there is only one W.C. for use of the staff-a quite inadequate provision which it might be possible to increase. The washing facilities for the boys consist of three wash bowls and two sinks about five feet long. The playground is exceedingly small and cannot be extended, and the playing field is at some distance from the School. The general effect of the restricted premises upon the studies and the behaviour of the boys is difficult to estimate but may well be considerable. The Authority are well aware of the main drawbacks, and hope to build a new School in 1951.

Equipment is generally good, but large additions are still necessary in Science. Much of what is needed could probably be acquired cheaply and quickly, or made on the premises, if the funds available could be used for incidental purchases. The School has two radios and a gramophone, a sound film projector (of which particularly good use is made), an epidiascope and a film-strip projector.

# SCHOOL LIBRARY

A room of about six hundred square feet has been well equipped with shelves and bookcases, tables and chairs to serve as a library. As the collection of books had hardly begun four years ago the accommodation available for them is at present more than adequate; but already there is not enough room in the library during peak periods, such as the mid-day break, for all the boys who would like to use it; and if, as is hoped, the provision of good books continues at its recent rate, expansion will soon be necessary.

The Master who is librarian performs his duties most conscientiously; he is assisted by two Prefects who are responsible for issuing books and cataloguing. The Dewey system is used; it is explained to the boys, together with the general organisation of the library and the arrangements for borrowing, when they reach the Second Form. Prior to this they are not permitted in the library because of the pressure on accommodation. This restriction may be partially relaxed in future by allowing First Form boys to take out books at specified times but not to remain in the library at peak periods. It is recommended that some system be adopted for assessing the frequency with which books are used.

The boys may borrow books to read at home either during term or in the holidays. Special times after school are set aside each week to deal with separate groups of Forms.

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Very few class lessons are held in the library, which is therefore available for reference or for study during almost any period of the week. A large proportion of the users during school time appear to be boys who are unable to take part in games or Physical Education, and who go to the library where there is a Master supervising. Whether such use of the room by boys who are not there primarily because they wish to refer to the books is the best solution of this problem is a matter for further consideration.

Of the 1,500 books in the library about 200 are fiction. The development of this side of the library has not been given such urgent attention as that of the reference section because there is very good provision in the Borough Library, which the boys are encouraged to use. The distribution of the non-fiction books amongst the different sections has been well balanced; there are no outstanding deficiencies which are not receiving the attention of the librarian. On the contrary, all concerned deserve to be congratulated on the good collection of books which has been acquired in so short a time. It is to be regretted that there is no machinery by which available funds can be spent on periodicals.

### STAFF

The Head Master was appointed in 1946. He thus entered upon his first Headmastership in a School which was just beginning the difficult transition from central to grammar school. He has had the dual task of building up material resources of every kind and directing the School towards a new conception of its aims. In these three years he has established friendly relations with boys and staff; he has shown himself thoughtful and just, and had the wisdom to concentrate the energies of the School on building up at all costs a tradition of advanced studies and the multifarious activities which enrich the life of a School. The School is thus much indebted to him. With lengthening experience he should gain strength in the technique of organisation and in directing the efforts of the staff, and it is hoped will achieve further success in developing in the School the humanistic approach to studies. He should now be able to do more systematic teaching and, especially in the Sixth Form, to supply some of the deficiencies noted below. He has the services of an efficient and hard-working secretary who does much voluntary work for the School.

Careers.

The assistant staff number nineteen, and include one Mistress. The Second Master is a capable and tactful organiser, and served the School well as a temporary Head Master. The average experience of the staff is sixteen years; their ages are nearly all between 35 and 50. Academic attainments are not high, but the average teaching ability is not below that usually found in a grammar school, and there are no weak teachers among the established staff; indeed, two of the teachers of academic subjects are of unusual ability, and similar praise can be given to two of the teachers of other subjects. The staff is not yet, however, quite adequate in spread of quality for the development of a very good Arts or Science side in the Upper School. Departmental organisation should be facilitated rather than hindered by responsibility payments; this consideration does not seem to have been clearly in the minds of those who determined their allocation. Nevertheless, the staff have co-operated energetically and well in their new endeavour. Some find difficulty in attaining an approach which is at once easy yet firm with the younger boys, who are both intelligent and lively; it may be found that this is bound up with the general need for extending the brighter boys in the acquisition of knowledge rather than exercising them in the amassing of facts. The Inspectors fully recognise that the ability of the boys is now considerably better than it was until recently, and that the staff have been required to direct their energies urgently towards several objectives

at the same time; they would wish to be allowed to congratulate all concerned on the results of their labours in the last four years. The time devoted by members of the staff to voluntary activities is worthy of note.

# ORGANISATION, CURRICULUM AND STANDARD OF WORK

The two Forms which the boys go into on entry are not graded and for the first three years follow parallel courses. Latin is begun in the second year and continued by all boys in the third year. In those first three years, General Science is taken by all; Music is a regular part of the curriculum, and Art and Handicraft are studied in alternate weeks. In the fourth year, one Form can continue Latin, but except in special circumstances its members are excluded from Art, Handicraft and Music; these boys read both History and Geography, and their Science is now physics-with-chemistry two years out of three, biology the third year (according to the staff available). Boys in the other Form drop Latin and either History or Geography, while developing their study of Science by diverging into biology, physics and chemistry. Art and Handicraft are taken in alternate weeks; Music is not included among the subjects available. This organisation would, in the main, be continued in the Fifth Forms, but the present Fifth Forms differ slightly from the pattern as they reflect an earlier organisation.

The organisation has been framed largely with a view to the now obsolescent School Certificate Examination and to the assumed needs of Sixth Form Science studies, and has doubtless been reasonably efficient, at least from the point of view of the former. Its drawbacks include the necessity, in the Fourth (Science) Form, of choosing between History and Geography, at an age when it is doubtful whether the true interest of either has been sampled, and the virtual exclusion from the time-table of Music, Art and Handicraft for boys who read Latin. It is, perhaps, even more disadvantageous that a boy should after the third year have to make, or be subject to, a decision which would make it rather difficult to follow on the one hand either a full literary or on the other hand a full scientific course at a later date. Much more flexibility and freedom of choice is desirable, and should not now be difficult to provide; possibilities discussed during the Inspection included the postponement by a year of the sub-division of the Science into three subjects, with three sets in the subject at the Fifth Form stage, methods of securing more homogeneous groups and courses more suited to the needs of the boys in certain other subjects, and scope for courses beginning later, but not too late, in school life.

Standards of work in the first five Forms are mostly good or very fair, and in Mathematics very good; there is, however, to be noted a lack of co-ordination between subjects mutually dependent and a general tendency to give the boys too much "pre-digested" information in the shape of notes. The latter in particular does not facilitate the transition to advanced work. Nevertheless, Head Master and staff are to be congratulated on the growth of the Sixth Form; courses have been provided in twelve subjects, on both Arts and Science sides. Examination of the programmes of all the Sixth Form showed that much thought had been given to them. The time has come, however, when the necessity of four main examination subjects for prospective scientists should be critically re-examined, with a view to giving the boys more time for individual work and for following other interests, whether those provided in the time-table or lines of study or channels of self-expression. In particular, some of the boys have all too little Physical Education. The Head Master is alive to these needs, and is already doing much to meet them. Good use is made of two current B.B.C. broadcast lessons. On the Science side, the work in Mathematics and Biology calls for special praise. The proper development of Arts courses is somewhat hampered by the lack, in the past, of good Latin:

this is on its way to being remedied. The development of Sixth Form work has called for a great concentration of effort by the staff, and the Head Master has made exceedingly liberal provision in the time-table for the sub-division of small numbers into year groups. The expense has been justified by the result: a tradition of advanced work is on the way to being firmly established in the School. The time is now approaching when it should be possible, by economising somewhat in these sub-divisions, to deploy the resources of the Sixth Form teachers over a larger number of Forms, and thus ultimately to put the advanced work on a still firmer basis by improving the habits of work and more fully extending the best boys in the other parts of the School. It will, however, be some time before continuity of Sixth Form work can be expected in all the major subjects, having regard to the size of the School, and the work will inevitably be relatively expensive of staffing. Its importance in determining the tone of the work of the whole School can hardly be over-estimated.

# SUBJECTS OF INSTRUCTION

# Religious Instruction

The Head Master is responsible for the Religious Instruction. He is assisted by three other Masters and the Mistress; only members of the staff who have a personal interest in the subject are engaged in its teaching.

In most of the Forms one period a week is given to the work. The syllabus is at present being re-cast; the lines followed fall within the scope of the Agreed Syllabus. Matters of interpretation and presentations are left to the teachers concerned. The teaching seen during the Inspection was sympathetic, sincere and clear.

The Sixth Form listen to a broadcast programme: this provokes lively discussion and is well followed-up.

# English

English is mainly in the hands of two specialist masters, although two other members of the staff share its teaching. The Senior English Master is an Honours graduate of considerable experience: he directs effectively the work of his Department and does much to inspire the many out of school activities linked with his subject—the School Magazine, the Dramatic Clubs and the Debating Society. His specialist assistant, who took up this, his first, teaching post at the beginning of the present school year, has made a good start and promises well. Throughout the School English is taught conscientiously. Exercise books are well kept and marking is thorough but not excessive. The supply of reading books is in general adequate and suitable, although the lower Forms need a wider choice of verse than that provided by their anthology. Successful effort is made to introduce boys to works of fiction which have value and which they may be expected to enjoy, and they make good use of School and local libraries. Drama, on the other hand, is somewhat neglected, particularly in the First and Second Forms, although boys in one of the Fourth Forms are writing and producing their own Play. Two Forms are engaged on their first Form Magazine, and during the Inspection a member of a Second Form was heard giving a short talk and dealing ably with the subsequent discussion. Such creative enterprises are exceptional in the School as a whole, but their success, together with that of related activities out of School, reinforces the impression that less attention might be paid to formal exercises and textual annotation and more opportunity be given for the original expression of lively interests in speech and writing. In the Sixth Form a large group is taking English. In view of the limited amount of time in School which these can spend on the subject it is suggested that they should be expected to do for themselves the main reading of set texts, and that effort in School might be mainly

concerned with discussion and the development of powers of critical discrimination. Members of the Upper Sixth showed that they enjoy this and that they could gain considerably from it. In sum, English is firmly established, and the less formal and more creative treatment which has been begun may be continued and extended with confidence.

# History

Two Honours graduates share the teaching of History: the Senior History Master combines a command of the subject with vigour and considerable experience: his well qualified assistant is in the first term of his teaching carecer. The time allowed to the subject is liberal, rising to either three or four periods a week in the Fourth Forms and to four periods in each of the Fifths. The scheme of work is designed to cover in the first three years an outline of man's development, particularly in Britain and Western Europe, from the earliest times until after 1815. The Fourth and Fifth Forms study British and European History since 1815 in preparation for the School Certificate Examination. Here the work would be more valuable if it were less directly concerned with answering examination questions. The Sixth Form course also includes British and European history between 1815 and 1923, together with a special subject chosen by the boys themselves—at present English social conditions in the reign of Queen Elizabeth. It is agreed that this continued study of the same period is undesirable and that History is sufficiently well established as a subject of advanced study in the Sixth Form for the course to be changed. Throughout the School variety is obtained by occasional use of Schools Broadcasts and historical films and by suitable reference to local events, and the reading of historical novels is encouraged; yet the extent of the syllabus imposes class teaching of outlines as the main staple of the work. This class teaching is effective of its kind; the boys are alert and the interplay of question and answer gives training in accuracy and relevance. However, the syllabus might be modified to allow more thorough study of selected topics and greater variety in independent work. Members of the Sixth Form have a good deal of independence in studying the special subject which they choose, and the results justify the suggestion that a freer approach might be more extensively used both in their work and in that of the rest of the School.

# Geography

All boys devote two periods per week to Geography during the first three years. Thereafter there is some choice, and for those who continue with the subject the time allowance is increased to three periods per week. In one of the Fourth Forms, Geography and History are alternatives. In one of the Fifth Forms, the choice is between Geography on the one hand, and Music, Art or Handicrafts on the other. This results in classes of different sizes in each of the Fourth and Fifth years. The arrangements in the Fourth and Fifth Forms cannot be regarded as satisfactory, and they should be re-examined.

A new syllabus of work for Geography below the Sixth Form has been introduced, but at the present time both the new and the old Schemes of work are in operation in different parts of the School. Most of the usual aspects of Geography are represented in the Course and the aim of the teaching is to study the interaction of man and his natural environment.

Two Masters share the teaching of Geography below the Sixth Form. One is an Honours graduate of the University of Leeds, who had had considerable experience elsewhere before joining the staff of the School in 1948. His work is careful, thorough and painstaking. He is also responsible for the teaching of Geography in the Sixth Form. The other Master joined the staff

in 1949. He is an Honours graduate of the University of Manchester. As yet, he is inexperienced in the art of teaching.

In general there is a tendency to rely too much on the direct impurting of knowledge of Geography to boys in the first five years and to minimise the opportunities for them to learn progressively how to think and act for themselves, but in the Fourth Forms a scheme is being followed whereby boys are encouraged to search out information under suitable guidance. It is working well, and could profitably be extended to other stages of the course. There is some effective co-operation with the Mathematics Staff, who deal, for example, with ideas of latitude and longitude. More use might be made of this liaison in developing a progressive course of Mathematical Geography, based on observable facts. This could include such matters as the measurement and interpretation of diurnal and annual variations of the sun's altitude; the making of maps and relief models from local measurements; and drawing sections and profiles from data obtained from maps or from measurements on the ground. Occasional visits to parts of the country within reasonable reach of the School would help to arouse interest and give reality to the study of Geography. start has already been made in encouraging boys at some stages to make their own records in the sense that some of them are responsible for making observations on rainfall, temperature and atmospheric pressure.

There are many points of contact in the teaching of Geography and the teaching of Science, and it is very desirable that Geography and Science staffs should examine together problems of common interest and make such adjustments in their separate programmes of work as seem desirable and feasible

One classroom is used as a Geography room and is equipped for the purpose. Representative collections of specimens and models should be gradually built up and made readily accessible in the Geography room. Although there is an epidiascope which is sometimes used, it is not entirely satisfactory and should be put into proper working order. Film strips are used, and broadcast talks are heard by some of the boys. There are also periodical film showings, some in school hours; others in out-of-school time. They are serving a very useful purpose.

There are at present four boys in the Lower Sixth Form who are following a Geography Course based on Higher School Certificate requirements. The Master responsible for the work has taken Sixth Form boys to the Geological Museum, and last year he conducted a small party on a visit to the Ingleborough district during the summer holidays.

### French

The teaching of French is directed by the Senior Master who is a graduate of Leeds University and came to the School in 1925. He is assisted by an Honours graduate of London University appointed early in 1939, and by a Mistress, the holder of a French University degree, who has taught classes in the First, Second and Third Forms since 1943. All three are enthusiastic teachers, and though their individual effectiveness is somewhat uneven, they form on the whole an efficient team. The teaching of the Head of Department particularly deserves commendation.

The course, based upon a carefully prepared syllabus, shows in the main a satisfactory rate of progression, though there exists a certain inelasticity in its development caused by close adherence to the plan of the text books in use. Thus, in view of the praiseworthy emphasis given to the spoken word from the earliest stages, the introduction of the perfect tense might well be made in the first year, and more attention might be given to the reading of suitably graded stories from the beginning of the second year.

The methods followed by all the teachers are in keeping with enlightened ideas of Modern Language teaching. For the most part French is the medium of instruction, and at all stages the pupils are active participants in the lessons, being encouraged to express themselves freely in French. The general satisfactory level of attainment in the various year groups, and the creditable results obtained in the external examinations are proof of the success of the methods adopted. It is suggested, however, that standards might be raised still more by an increase in the pace of the average lesson, except in the classes taught by the Mistress, whose teaching tempo is impressive. The judicious use of group repetition might also be practised in an effort to increase the value to the individual pupil of the time available. The standard of pronunciation, on the whole satisfactory, is most pleasing in the lower classes. The use of a progressive scheme of phonetic exercises continuing to the Fifth Forms would be helpful in securing greater accuracy of pronunciation, enunciation and intonation in the case of the less able pupils.

Pupils' written exercises are for the most part neatly and carefully done, and show a wide range in the type habitually set, though more frequent practice in free composition would be advantageous in certain classes. The care devoted to the marking of pupils' exercises by all the teachers merits commendation, but the Department might reconsider by what means the teachers' corrections might be made most profitable to the pupil.

Sixth Form studies are in the care of the second French Master. Adequate preparation is made of the books set for the Higher School Certificate Examination, but the course would profit by more extensive reading of works not prescribed for examination study. To this end it is strongly urged that appropriate additions be made to the French section of the library which at present is very small; not only literary texts, but more books of reference in French are needed. With a view to increasing efficiency in Sixth Form Studies it is suggested also that the Senior Master should take a larger share in the teaching of this Form. Pupils' standards at this stage are fair, the oral proficiency in the case of a few pupils being high.

The services of a French Assistant, exchange visits to the homes of French friends, a French club, and group visits to France are giving added reality to classroom studies, and the subject as a whole is undoubtedly making a very valuable contribution to the work of the School.

### Latin

Latin is taught mainly by a young Master who is in his second year of teaching. He has a second class Honours degree of London University and a Diploma in Education, and is an enterprising and stimulating teacher who gives much thought to the organisation and the details of his work. He is assisted by three older men whose main qualifications are in other subjects. Before the appointment of the present Master the subject, which has only been introduced in the last four years, suffered much from changes of staff.

The language is begun in the Second Forms by all boys. Parallel courses are followed for two years, after which one Form continues the subject for two more years. The value of the course for those who do not continue would be enhanced if, by the use of Divisions in the first two years, their work could be rounded off as a self-contained course. The syllabus is mainly sound, the aims of the teaching are praiseworthy and a vigorous attempt is being made to achieve them. A good grounding is given in the accidence in the early years; a progressive course book is being introduced gradually and in the meantime the existing books are being supplemented by an interesting reader. By the

use of various devices much background knowledge is introduced without undue diversion of time from the linguistic study, and boys are encouraged to make early use of the library in preparing subjects for lecturettes. A subject room is gradually being equipped with attractive and interesting pictures, diagrams and newspapers.

The results of this approach are naturally not yet fully evident. The Fifth Form has had a particularly chequered career, is somewhat retarded, and has no tradition of accuracy and care. Methods of dealing with set books at this stage might be re-considered. A good lesson in Unseen Translation was seen. There is scope for a greater variety in the reading of the Fourth Form, who are capable of more than is at present being asked of them. Metrical reading and the learning of passages by heart might also find a place at this stage. It is pleasing to see that at least one of the Third Forms has a commendable speed of reading.

The first and the second-year Sixth Forms are taught separately. The first-year boys are three in number, and it is doubtful whether any of them will become a serious student of the language. The second-year boys, although many of them took up the subject late, are a good Form, interested in the literature and capable of benefiting greatly in their general education from scholarly comment. It is hoped that when Latin is well established in the School it will be a usual part of the Sixth Form Arts Course, and not, as at present, a fourth main subject. When this comes about there will be more scope for the wider reading which, as the Master is well aware, is necessary for a satisfactory course. It is pleasing to be able to note that two boys who left recently have gone on to a University with the intention of reading Greek, to which they were given an introduction while at School.

A classical library is being built up systematically.

### Mathematics

This subject, while not receiving more time than is usual in a Grammar School, enjoys a conspicuous position in the curriculum of the School. The quality of the teaching is good; the standard of performance of the boys is high; above all, there is a genuine appreciation of the subject which shows itself in a constant searching for what is worth while and an eagerness to reject what is second-rate.

This happy state of affairs may be attributed to good team-work on the part of the Assistant Staff and first-class leadership. The Master in charge of Mathematics has a good Honours degree; he was appointed in 1944 as Physics Master, but took charge of Mathematics after a year. This is his first post in a Grammar School, although he has had nineteen years experience as a graduate teacher. All this time he has continued to study Mathematics and to read books written about Mathematics, and as a result has an unusually broad view of the subject which shows itself in the scheme of work and in the attitudes of the staff and boys. One other Master teaches Mathematics full-time. He is a conscientious, thorough and precise teacher, genuinely interested in new ideas. These two are responsible for most of the Sixth Form work. A third Master who is about to leave after two years in the School does some Sixth Form teaching, but his most useful contribution has been made in other Forms. The Games Master, a forceful, competent teacher of elementary Mathematics, has for some years past taught two Forms below the Sixth.

There are many signs in the School that the teaching has moved with the times. The value of teaching calculus below the Sixth Form is realised in many schools; but it is less common to find, as here, that not only do all the boys

include it in their syllabus, but the scheme of work recognises that the rudimentary ideas necessary for the full understanding of this and other aspects of Mathematics should be introduced early and developed gradually. Here they are brought in formally during the second year, with an introduction to While commending the perception which has seen the cartesian geometry. need for this early start, one feels compelled at the same time to suggest that a less analytic treatment in the elementary stages might ultimately be of greater value. Practical applications of mathematical principles are emphasised in the Middle and Upper School. Three-dimensional geometry and trigonometry are given prominence, and are introduced through handling solid and wireframed models. The early study of geometry has been enlivened by the construction by some of the boys, in their own time, of three-dimensional models. The work in the School is now of such a standard that there should be no fear of giving time in School to this sort of exercise, or to other interesting practical work which is directed to serving strictly mathematical ends. In the first two years more use could be made of applications of Mathematics and of familiar results in arithmetic as sources of new ideas.

There is no shirking of hard work either by boys or staff. Some of the exercises successfully tackled by many of the boys could be criticised because they are difficult or involved, but not because they are trivial or lacking in mathematical principles. Less might legitimately be demanded of the slower, and more of the abler boys; the extra work done by the latter might take the form either of harder and more illuminating examples on the same topic, or quite different exercises involving individual research or illustrating principles for which time cannot be found in the ordinary way.

Notwithstanding the rapidity with which the Sixth Form Course has developed, the standards of work are good. Whether the small numbers of students in the classes at this stage, sometimes as low as two, and seldom more than six, justify the continued expenditure of so much of the time of the specialist teachers will have to be considered in the light of the needs of the School as a whole. The pace of the Sixth Form work is brisk, a great deal being covered in the first year. Rather more time is spent on miscellaneous exercises in the second year than one might wish, especially in Applied Mathematics, but in Pure Mathematics the second year students are extended by continual attention to the presentation of new ideas and more powerful processes. It is refreshing to meet a Sixth Form which finds time to read through, and discuss in class, such a book as the late Professor Whitehead's Introduction to Mathematics.

Two further recommendations were made during the Inspection: the institution of a system of cross-classification for Mathematics below the Sixth Form, and the setting aside of a room as a Mathematics room, where apparatus, charts and models could be displayed and experimental work encouraged.

### Science

Throughout the School Science is organised on a Form basis. Up to and including the Third Forms, all boys follow a course in General Science based on a syllabus of work which was introduced in 1947. This includes some chemistry, biology and physics, excluding Light and Sound (an omission which might well be remedied). The aim is to present Science as a unity, and to avoid a treatment involving the teaching of physics, chemistry and biology as separate subjects. Four Masters are concerned with teaching at this stage. Three of them are full-time teachers of Science, the other teaches Mathematics in addition to General Science. Although all the teaching is based on a common syllabus, the emphasis given to different aspects of General Science at

the same stage, and the rate of progress, vary considerably. This is partly because of the different individual interests of the Masters themselves, and partly because some Forms do the whole of their work in one particular laboratory where equipment and facilities generally are to some extent restricted to one branch of Science. There should be more careful planning and closer collaboration between Masters concerned with Science teaching. Insufficient attention has been paid to Science in its relations to everyday life, and opportunities are thereby lost for arousing and maintaining interest. Since all the Forms are large, and in one instance laboratory accommodation is very restricted, such practical work as exists is done under difficult conditions. Demonstration experiments are done by teachers but they are limited in scope and number. For one period a week the two First Forms combine to listen to broadcast talks, record essential points and ask questions. It is an interesting experiment which should be carefully watched.

In the Fourth and Fifth Science Forms physics, chemistry and biology are taken by all boys as separate subjects. In the corresponding Arts Forms physics and chemistry are taught as a combined subject for two years in succession, followed by a year when biology is introduced instead. Thus, according to his year of entry to the Fourth Form a boy may not be able to study either biology or physics and chemistry. This restriction, combined with the necessity for making a final decision about an Arts or a Science Course at the end of the third year, has serious drawbacks. Consideration should now be given to a more satisfactory solution. One possible line of development would be to allow all boys to continue General Science until the end of the fourth year, after which they could have the choice of studying physics, chemistry and biology, as separate subjects, leading eventually to work in the Sixth Form, or of continuing for another year, if it were desired, with General Science. This would involve the formation of three Sets at the Fifth Form stage.

Work in the Fourth and Fifth Forms now follows the requirements of the School Certificate Examination which has hitherto been taken in the Fifth Form. The general standard of work in physics and chemistry in the Forms below the Sixth is not high, but in biology, which seems to make a strong appeal, a promising start has been made since the introduction of this subject into the curriculum of these Forms.

It is unfortunate that some of the ablest boys do not stay at School to continue Science in the Sixth Form. Nevertheless it is no mean record that at the time of the Inspection eleven boys were following a Course in one or more of the subjects physics, chemistry, botany and zoology leading to the Higher School Certificate. Some of them have a heavy programme since they are devoting most of their time to four subjects, either in Science alone or in Science and Mathematics. The time available for private study, and for the pursuit of non-scientific subjects is correspondingly small.

Although numbers in the Upper and Lower Sixth Science Forms are small for any one science subject, they are taught in two groups at separate times, except for practical work. This involves a large expenditure of time by the specialist masters concerned. At the present stage of Sixth Form development adjustments to the time-table should be made whereby these Masters could extend their influence over a larger number of Forms. This could be done without detracting from the work of the Sixth Forms. Possible methods of achieving this were discussed during the Inspection.

The Sixth Form work in botany and zoology shows considerable promise. The approach to these subjects is live and stimulating. In physics and chemistry progress is being made, though examination requirements perhaps exert too

strong an influence on the teaching. In general, every encouragement should be given to boys to do more for themselves.

The physics and chemistry laboratories are large enough to deal with present numbers. The biology laboratory, which was originally designed as a physics laboratory, is so small that there is serious crowding when a full Form has to be accommodated. There is no greenhouse for experimental work, nor is it possible to remedy this omission on the restricted school site. There are deficiencies in equipment which were discussed during the Inspection. They should be made good as soon as possible. Much of the material needed could be constructed. Some could be purchased, either second-hand or new. Some use is made of optical aids, and extension of such teaching aids should be encouraged, particularly in the Forms below the Sixth.

The teaching of Science in the School is in a transitional stage. In view of the fact that until Summer 1948 the new laboratories for chemistry and biology were not ready for use, the progress already made under very difficult conditions has been very satisfactory. Development towards a more comprehensive and co-ordinated scheme of work will depend, in no small measure, on close collaboration between members of the Science Staff, which should include a recognised Head of the Science Department, with all that this normally implies.

### Art

Art is taken in a Church hut a few minutes walk from the School. It adjoins a park which, in the summer, allows the boys an excellent opportunity for working in pleasant surroundings out-of-doors.

The natural lighting of the hut is poor but the artificial lighting is reasonably good. The place is heated by two small stoves; on the day of the Inspection only one stove was being used and the room was cold. Near the hut is a small room which is used as a store; it is damp and some of the space is taken up by disused furniture.

The main disadvantage is that in the evenings and on one afternoon during the week the hut has to be used for purposes other than teaching; this involves moving the furniture at the beginning and the end of every day. At present the hut badly needs re-decorating.

The Master in charge of the subject is an Associate of the Royal College of Art and has been at the School since 1945. He brings determination and courage to overcome the difficulties produced by the poor accommodation. He takes an active part in the production of School plays and magazines.

The boys work with zest and are encouraged to paint freely and with confidence. Pictorial work dominates the curriculum although a start has been made in introducing clay-modelling. Some of the boys in the upper Forms have produced work of a good standard and gifted boys have gone on to London or local Schools of Art. Design has received little attention and there is room for development on this side.

In the Library are a few books dealing with the subject, but there is a need for more reference material within the studio.

### Handicraft

Handicraft is taught up to and including the Fifth Form. The workshop, well equipped and attractively maintained for the teaching of woodwork, is the centre of interest and enthusiasm. Supplies of timber are satisfactory and tools are kept in first-class condition.

A short preliminary course in bookcraft gives early training in accurate measurement with good results. This is followed by intensive practice in the few essential woodwork joints to develop, as the boys' work shows, precise tool manipulation. Thereafter, the course consists of graded instruction in constructive woodwork including some simple cabinet-making. An excellent level of craftsmanship is reached by most boys and their attainment gives clear evidence of the quality and thoroughness of the teaching.

That the subject is cultural in so full a sense is due in large measure to the Handicraft Master, who has been a member of the staff for twenty-nine years. In his younger days he was influenced by the Slojd school of Swedish woodwork and throughout his career he has retained high standards of hand craftmanship whilst basing his teaching on the best modern practice. He is held in affectionate regard by present and old boys and the School recognises its good fortune in having the devoted service of such an able Master.

### Music

The School is fortunate in having a well qualified and versatile musician with good teaching experience to take charge of the subject. During his two years' work, he has already laid the foundations on which a vigorous musical tradition can be built.

All boys in the first three years have two 35 or 40 minute periods. In their fourth and fifth years, music is one of a group of optional subjects and those who select it have two or three weekly lessons in small groups. A general class lesson is given to the Lower Sixth Form on the Arts side.

The syllabus is well planned and aims at providing a general training in singing, aural training and appreciation. The course is not overloaded but it gives a good groundwork for those boys who wish to specialise after the third year.

Teaching is sound, thorough and effective. Boys respond well, work hard and enjoy their lessons. In singing they are developing a feeling for intonation, phrasing and interpretation. Enunciation is clear, but in some Forms there is a lack of rhythmic impetus in the choral work. Aural training and music writing is in its early stages, except in the examination groups, where promising work is to be seen. An endeavour to build up a broad knowledge of the literature of music is resulting in a growing familiarity with classical, romantic and modern music.

The vigour of out-of-school musical activity is a reflection of the stimulating influence of classwork in the exceptionally keen and interested boys. Two choirs, one doing S.A.T.B. work, string classes, and recorder groups assemble during lunch hours; orchestra, the Music Society, and piano lessons take place after school. So great is the demand to join these activities that the junior recorder work has to be taken by a senior pupil intending to take up a musical career, and help will be needed from a violinist member of staff for string classes. Full advantage is taken both of concerts arranged by the Croydon Teachers' Music Association in conjunction with the Local Education Authority and of public musical events.

Equipment for Music is fairly adequate. Of the three pianos in the School, two are satisfactory. The gramophone is good, and a stock of orchestral instruments is being acquired. Music for class work will need replacement and supplementing, especially for the senior pupils for whom sets of miniature scores will be very useful. A good beginning to the Music section of the library has been made and the Music room is made attractive by three very appropriate framed prints.

# Physical Education

The Master in charge of Physical Education is an effective teacher and the lessons he gives in the Gymnasium make a valuable contribution to the boys' general development. The young Master who assists by taking the third year Forms would benefit by attending a physical training course for teachers.

The boys turn out well and are keen. There are drawbacks to the room equipped as a Gymnasium in that it is used for meals, and serves as a corridor. There is no changing-room and the boys, who strip down completely into shorts, use a small lobby. To make things slightly more comfortable and hygienic, some form of containers for discarded clothing should be provided, and if possible, the stone floor should be covered.

The time-table gives two Physical Training lessons a week for all Forms up to the Fourth. The senior Forms, however, have only one lesson each week, and this falling off in the later years reduces the standard of achievement below the high level which the teachers and pupils are capable of reaching. Swimming is taught as far as the time-table and bath allocations permit. It would increase the value of the Physical Education programme if a little time could be found for lessons in theory including some instruction in personal hygiene and health practices.

All Forms have a double period for games, with which several members of the staff assist. The improved condition of the field, now that it is fenced in, is leading to a much improved standard of play and the School now meets with a very fair measure of success with its football and cricket fixtures.

The annual cricket match—School versus Staff—is a pleasant and important event, and the Sports programme, in addition to Athletics and National Games, includes swimming and some boxing and tennis.

# SCHOOL MEALS

About 76 per cent. of the boys have School Dinner, which is cooked in a kitchen on the premises and eaten in the gymnasium in two overcrowded sittings. The food is appetising and the menus varied, but full rations should be

taken up and used; otherwise the quality of the meal will fall short of the standard aimed at for School Dinners.

The School is handicapped by the dining arrangements which are far from ideal. Nevertheless some social training could be undertaken with advantage.

# GENERAL SCHOOL ACTIVITIES AND CORPORATE LIFE

The School day begins with Assembly: much thought has obviously been given to the planning of this. Owing to the smallness of the Hall it is necessary for one year-group each day to have Form prayers.

There are thirteen prefects, who play a very useful part in running the School. They confer with the Head Master periodically upon matters which come within their purview. The Inspectors were pleasantly impressed by these boys and are glad that even in so small a building a room is set aside for their private use. Discipline and good manners among the School in general are not made more easy to achieve by the lack of space, in consequence of which boys are allowed out freely in the lunch hour, and lack of sufficient room for physical exercise. Apart from this the Inspectors saw nothing to suggest that discipline in the School need present any special problem, and a little more attention might be given to the matter by all concerned,

Responsibility for health education does not appear to have been clearly defined in the past; arrangements for making this more effective were discussed during the Inspection. Medical inspection is confined to leavers (except by special arrangement): an inspection earlier in the school life, at which the Physical Education Master could be present, would have obvious value if it could be arranged.

Some advice on careers is given by the Head Master. He has good relations with the Headmasters' Employment Committee, which has been very helpful to many leavers. School-leaving reports are sent to the Youth Employment Officer, and it would be helpful if this Officer were invited to talk on careers in the School. His services might also be sought in connection with visits and notifications of vacancies by employers. A panel of Old Boys has also given talks on careers. A Careers Section might advantageously be built up in the School Library.

The last three years have shown a great development of society activities, which offer what may be lasting interests for the boys and give opportunities for responsibility and initiative. They include a Choir, Recorder group, Orchestra, Dramatics, Debating, Scientific and Geographical Societies, Chess, Music and French Clubs and others which are signs of a vigorous corporate life in the School. The magazine reflects creditably on those concerned with its production.

### GENERAL CONCLUSIONS

The School is still in a state of transition, but in spite of all the material disadvantages has made commendable progress in establishing advanced, studies, and has started to build up the tradition of an education which will fully develop the personalities and abilities of its pupils.

APPENDIX

Numbers and Ages of Boys in Forms.

Form		Total	Average Age on 1st Dec., 1949		Number of Boys in the School on 1st December, 1949 whose ages were:—							
		No. of Boys			under 12	12 and under 13	13 and under 14		15 and under 16	16 and under 17	17 and under 18	
* * * *			Υ.	М.	00							
I.H I.C	***	34 32	11	10	22 28	12		_		-		
** **	•••		11	2	20	4	-	_		-	_	-
** **		31	12	8 7 7 7 5	. 2	23 27	5		-			
*** *	•••	28	13	7		2/	13	- 7				
*** **		30	13	5		8	27	2				
*** **	•••	34	14	8	=		1	24	0			
IV.E	***	31	14	9			2	19	9	2		70.0
V.Sc	•••	30	15	11			-0		13	10	3	
V.A	***	30	15	6				8	15		- "	-
V1.Sc		11	17			+-			10	5	4	
VI.A		22	17	3 2	-	_	-	-	_	7 5 9	11	2 2
TOTALS		346	_		53	75	54	64	45	33	18	3